

MANAGEMENT PLAN
FOR
OIL SHALE TRACTS Ua and Ub,
FACILITIES AND LANDS

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U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANAGEMENT PLAN FOR OIL SHALE TRACTS Ua AND Ub
FACILITIES AND LANDS

Recommended for Approval:

Paul M. Adams
Area Manager

March 12, 1987
Date

Approved:

David W. Moore
District Manager

March 12 1987
Date

Concurred:

Ken Carson Jones
State Director

3.31.87
Date

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MANAGEMENT PLAN FOR
OIL SHALE TRACTS Ua/Ub, FACILITIES AND LANDS

I. Introduction

The Oil Shale Prototype Lease Tracts Ua and Ub were originally offered in a competitive lease sale in 1974 by the Bureau of Land Management (BLM). The two Utah tracts were 5,120 acres each, and located in the Bureau of Land Management's Vernal District, Bookcliffs Resource Area of northeastern Utah (Figure 1). In 1974, Sun Oil Company and Phillips Petroleum Company were the high bidders for Tract Ua, and White River Shale Oil Company (SOHIO) the high bidder for Tract Ub. Leases were issued to these companies for their respective tracts on June 1, 1974. The leases were held until December 1985, when they were relinquished. However, actual transfer of Tracts Ua and Ub to the BLM did not take place until September 30, 1986. During the term of the leases, the BLM and the lessees were involved in a lengthy period of litigation involving the right of the State of Utah to select these lands under the "in-lieu" program. After the issue was settled by the Supreme Court, there was subsequent development of the lease tracts. The development of the tracts includes a mine with a two legged decline with grades of 24 to 26 percent and a length of 4800'; vertical shafts for air circulation and escape; surface facilities include mine service building, sewage treatment plant, water treatment facility, hoist house, headframe, exhaust fan, substation and switch gear building, a runoff retention dam, top soil stock pile areas, helicopter landing pad, service roads, two water wells and pump station, ground water monitoring wells and various holding or evaporation ponds. Also included at the mine service building complex are three trucks, a front-end loader, and other assorted pieces of equipment which were also transferred to BLM. After the transfer, the BLM assumed responsibility for the operation of the complex, in a shut-down mode.

This management plan sets forth procedures to manage lands and resources by incorporation of and in reference to the Bookcliffs RMP/Record of Decision which discusses at length the multiple use of lands and resources in Tracts Ua and Ub. Management of surface and underground facilities are set forth in this document.

II. Objectives

- A. Encourage the orderly development through leasing of the oil shale within Tracts Ua and Ub.
- B. Maintain the existing equipment, facilities, and mine, which were transferred to the BLM, at a minimum of expense and effort, within all applicable regulations and laws.
- C. Allow for short-term uses, i.e., sampling, scientific studies, etc., as long as they do not conflict with the objective of adequately maintaining the location for potential future leasing.

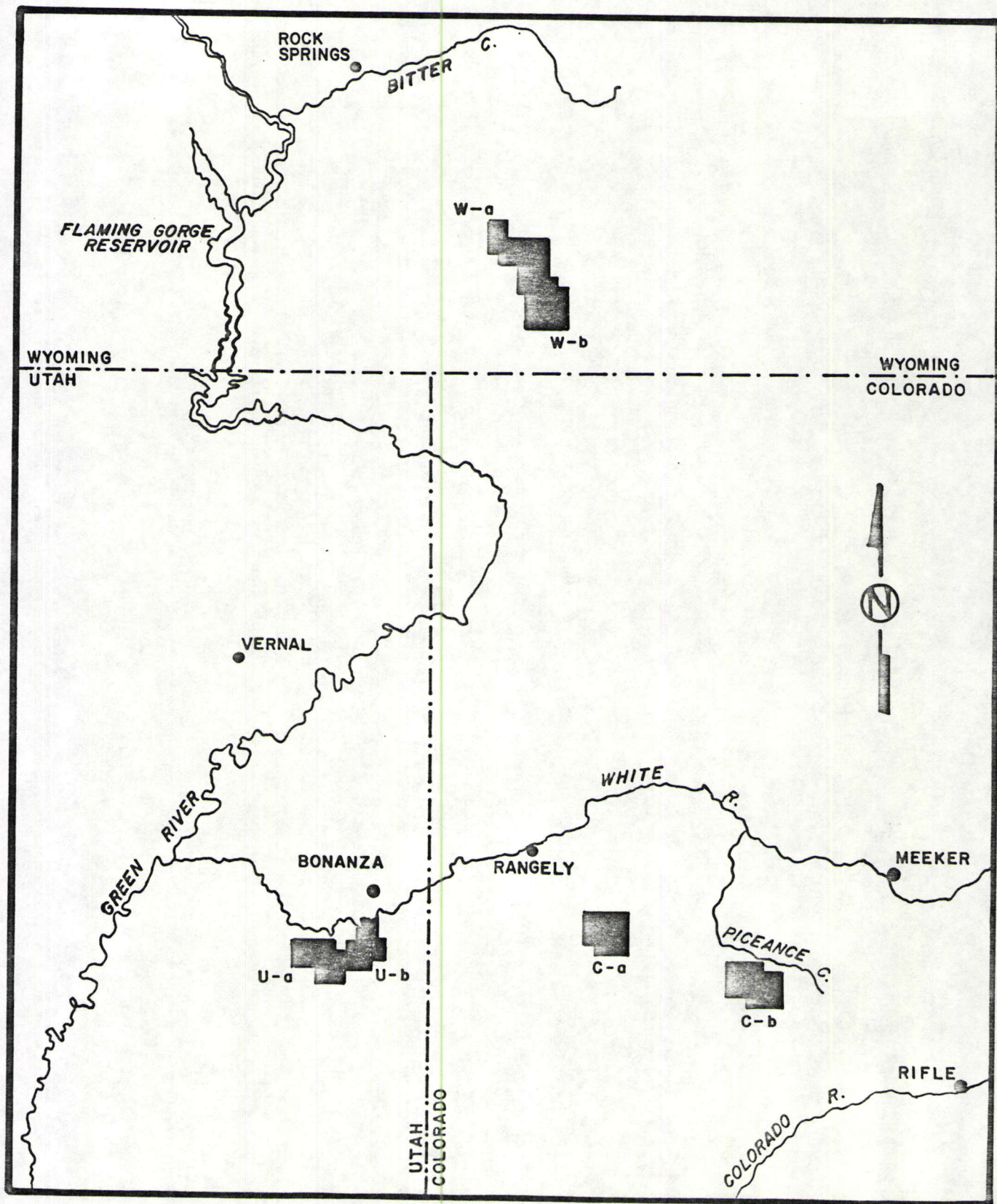


Figure 1. Location of Tracts Ua and Ub. Approximate map scale, 1 inch equals 17 miles.

- D. Maintain a feasible reclamation plan.
- E. Implement the reclamation plan if oil shale development does not occur.

III. Responsibilities

- A. District Manager has overall responsibility and approves all major actions within his authority. Major actions may include requests to extract rock samples from within the mine, conduct mining experiments, utilize the buildings and the land within the tract boundaries.
- B. Area Manager, Bookcliffs Resource Area, is the coordination point for discussions with potential users. He coordinates input from the area and District staffs regarding potential use, and approves minor, short-term use requests. These include requests for samples from stockpiles and use of the land within the Tracts Ua/Ub.
- C. Assistant District Manager (ADM) for Operations is responsible for site maintenance, site safety, and is program leader for the contributed monies now in a special project fund. He also coordinates activities with other regulatory agencies.
- D. ADM's for Minerals and Lands and Renewable Resources provide specialized, technical expertise and coordinates with the state office.

IV. Multiple Use of Lands and Resources in Oil Shale Tracts Ua/Ub

The Bookcliffs Resource Area Management Plan was issued in November 1984. The Record of Decision implementing this management plan was issued in May 1985. The Resource Management Plan discusses in considerable detail the land/resource use, and mitigations and/or alternatives when conflicts occur between multiple resources use. The Resource Management Plan covers both surface and subsurface resources on federal lands administered by the BLM which include the Tracts Ua and Ub. Activities involving resources such as grazing, recreation, wildlife, rights-of-way, watershed, and minerals are discussed and analyzed in accordance with multiple use principles. Resource activities must be conducted in accordance with the law, regulations, policies and procedures of the BLM including the Bookcliffs Resource Management Plan. Any proposals to utilize the surface and subsurface facilities, developments and improvements, and equipment in Tracts Ua and Ub must be authorized and implemented through this management plan.

V. Facilities - Description, Maintenance, and Security

- A. Surface Facilities and Equipment

1. Configuration

Appendix A. shows the location of surface facilities listed in the Introduction. Detailed plans for the buildings and other surface facilities are on hand at the mine service building.

2. Equipment

The real and personal property has been inventoried, recorded, and verified in accordance with established BLM procedures. These property lists are available for review with the property section and are not listed in this document due to its length.

3. Maintenance

- a. Buildings. Buildings will be maintained by an on-demand schedule. The maintenance workers will inspect the buildings on a monthly basis to determine if there is any damage which should be repaired. A list of such damage will be relayed to the ADM for Operations for his review. He will review and approve the expenditure of funds for the repairs.
- b. Equipment. Motorized equipment (hoist, exhaust fan motor, vehicles, etc.) will have periodic maintenance performed as determined to be necessary. If such maintenance requires a major overhaul, the ADM, Operations will approve expenditures for such maintenance prior to work being performed. If equipment is damaged, a report of the damage will be submitted to the ADM, Operations. The ADM will decide if the item is to be repaired or replaced.
- c. Access Roads. The conditions of the access roads will be checked quarterly. Needed maintenance will be reported to the ADM, Operations, who will determine what and how maintenance will be done.

4. Security

There are two BLM maintenance workers who live on location to provide security as part of their duties. Their normal work week will be Monday through Friday, but this may be modified by the ADM, Operations when required, including provisions for 7-days a week coverage during times of high public use in the vicinity, such as during deer hunting season. Their security duties are:

- a. Keep main entrance gates locked except to allow admittance of authorized personnel.

- b. Report to the District Office by radio or telephone at 8:00 a.m. and 4:00 p.m. on workdays.
- c. Report suspicious activity to ADM, Operations. Report break-ins, theft, vandalism, or illegal activities requiring immediate assistance to the Uintah County Sheriff's Department during non-work hours.
- d. Visually inspect all surface facilities at least weekly for security.
- e. Assure all preventive measures are taken to secure all buildings from breakin (i.e., lock doors, close windows during non-duty hours).

B. Subsurface (Mine) Facilities

1. Configuration

Appendix B shows the mine configuration and equipment. More detailed sections and plan views along with schematics of electrical and communication systems are on hand at the mine service building.

2. Maintenance

- a. Equipment. Mine equipment will be maintained to allow for safe operating conditions in a gassy mine. All equipment will be serviced as per manufacturers instructions. Lines carrying power and communications cables will be visually inspected for servicability when the mine is entered for inspection or maintenance.
- b. Existing Mine Workings. The mine roof, floor, walls and air will require monitoring to allow for safe working conditions. The following are items to be monitored:
 - (1) Explosive (Methane) Gas Content of the Air
 - (a) MSHA classified the mine on Tracts Ua/Ub as gassy in a citation issued to Frontier Kemper on December 7, 1983. A .3 percent methane content was recorded by MSHA inspectors during an inspection following a report of fire (flames) in rubble after a blast during the driving of the shaft.
 - (b) MSHA regulations require the methane content in the mine air to be below 1.0 percent before personnel are allowed in the mine. Forced air circulation will be maintained while personnel are in the mine. Manual detectors will be

monitored for explosive and other gases (CO, CO₂, H₂S) content while personnel are present in the mine. Monitoring and other actions will be in accordance with 30 CFR 57 Subpart T - Gassy Mines.

*WHAT TYPE ?
NMS Dan System ?*

The gas sensors shown in Appendix B are not connected with a terminal at the surface. The terminal is in storage in the District Office.

(2) Mine Integrity

The mine floor, walls, and roof will be visually inspected every time the mine is entered to detect joint expansion, fallen blocks, roof sag, floor heave or other mine structural problems. The original mine operators installed rod extensometers and stratascope observation points in the 55' wide x 330' long test room. None of the instruments to read these stations were transferred to the BLM. There are no MSHA regulations which make periodic readings on these instruments mandatory. Problems detected will be addressed to the ADM, Operations. A decision to take corrective action will be made by the District Manager.

(3) Water and Other Fluids Introduced Into the Mine

(a) Birds Nest Aquifer Ground Water

Water is derived from the Birds Nest Aquifer (see Appendix B). Water from the Birds Nest is drained into a sump (Appendix B) where it is discharged by a pump which works automatically on a float system (floats switch the pump on and off). The water is then pumped through a three-inch line to be discharged into an evaporation pond at the surface.

(b) Ground Water Seepage Below the Mahogany Oil Shale Zone

The lower sump (Appendix B) collects fluids from below the mahogany zone. This water is pumped to the surface to a 10,000 gallon storage tank. It is then hauled by truck to an approved disposal pit. The sump must be visually inspected at least once a month to monitor the fluid level to determine when it must be drawn down. The ADM, Operations will determine the need to lower the fluid content and arrange for proper disposal of the lower pit fluids.

3. Security

The only access into the mine is through the decline entrance and the shaft. The doors to the decline are locked when not in use. The shaft is fenced at the surface and the fence is locked when not in use. A personnel carrier attached to the hoist is the only access to the mine through the shaft. The carrier, which is kept at the surface, is locked behind the fence.

- C. Acceptable Alternatives for Disposal of Produced Water From Mine. (At present, fluids from the lower water pit in the mine is being hauled to the approved disposal pit at LaPoint. A water analysis will be made in the near future to determine if special disposal of this fluid is needed. This section is tentative until the results of the analysis is available.)

*Has an
analysis
been
made?*

1. Disposal to an approved disposal facility off location.
2. Disposal on-site. This is a viable alternative only if adequate facilities can be constructed. Required actions may include:
 - a. Construct a siphon pit. This design consists of an evaporation pit and an oil accumulation pit.
 - b. Spray water/sludge on roads within Ua/Ub to reduce dust and develop hard road surfaces.

VI. Requests for Use of Facilities

A. Storage

Lands encompassed by Tracts Ua/Ub are public lands which may be made available for storage, such as equipment storage at ground level, to the extent that such use would not conflict with the primary use of the site or maintenance of its facility. Any requests would be routed to the Area Manager, BCRA and forwarded through regular channels. Requests to utilize the lands and existing facilities (from federal, state, and local agencies, and private individuals or companies) will be reviewed by the BCRA, in consultation with the ADM, Operations, to assure compliance with management documents and with NEPA. Short-term commitments of 12 months or less may be approved by the BCRA Area Manager; longer term commitments will be approved by the District Manager. A land use permit may be issued if usage does not exceed three years. A right-of-way is required for requests of uses longer than three years.

The right-of-way or land use permit would include stipulations that provide for cancellation or amendment before the termination date if the land involved is leased for oil shale or it is

scheduled for reclamation. Other site specific stipulations will be formulated. Fees for the permit or right-of-way will be assessed except for federal, state, local or county governmental agencies or non-profit organizations. Where no fee is required by regulation, we may, through a negotiated agreement, require the user to pay a prorata share of security and power costs.

B. Scientific Studies

Since the transfer of oil shale Tract Ua/Ub facilities to the BLM, there have been several requests to utilize the mine for obtaining samples and conducting an array of mining studies. Requests to utilize the mine for scientific studies will be reviewed in the order in which they are received. The area will review the proposal, in consultation with the ADMs for Mineral Resources and Operations, and make recommendations to the District Manager. The District Manager will have approval authority.

The following will be significant factors in considering such requests:

1. The plan must be sufficiently detailed to permit a thorough analysis of the proposal.
2. The amount of time required (day, months, years) to accomplish the proposed activity (normally no longer than three years will be approved).
3. The plan must be reviewed for environmental and safety concerns and environmental monitoring may be required during the activity.
4. Activities will not be permitted which would adversely effect the integrity of the subsurface facilities or mine area.
5. This proposed use must not present a loss of revenue (rental/royalties) through the extraction of significant quantities of oil shale. This may be mitigated if there is a reasonable expectation that the proposal may lead to a "significant" break-through in oil shale technology or if it would promote the oil shale of Tracts Ua/Ub to make it more attractive to leasing.
6. Depending upon the size and extent of the proposed operation, a bond may be required.

C. Plan Review Process

1. The Resource Area office will review requests in the order they are received. The Resource Area Manager will make recommendation(s) to the District Manager. The Divisions of Operations, Minerals, and Lands and Renewable Resources will review and comment.

2. The District Manager will decide to issue a permit with appropriate stipulations or deny the request.

D. Conditions of Approval

1. Approval will be given on a Land Use Permit Form (Form 2920-1) and contain stipulations as required. Appendix C shows the form and an example of minimum stipulations or conditions.
2. The BLM will not provide funding support for permitted activities in the mine. The permittee will be responsible to pay a prorata share of electricity costs.

The power usage meters will be read on a monthly basis. That portion above the normal power consumption will be payed monthly by the permittee.

E. Mine Entry

The following individuals are authorized to enter the mine:

1. BLM employees concerned with the maintenance, security or safety in the mine.
2. Individuals who are permitted to conduct activities within the mine. This is only allowed within the time period specified in the permit.
3. Authorized Mining Safety and Health Administration (MSHA) inspectors.
4. Individuals on special pre-arranged tours for prospective permittees, lessees, or others who have an interest in the mine.

VII. Mineral Development

A. Leasing of Minerals

Leasing of minerals will be done according to the applicable BLM regulations and policy as follows:

1. Oil and Gas - 43 CFR 3100 and BLM Manual 3100.
2. Tar Sands - 43 CFR 3140 and 3141.
3. Gilsonite - 43 CFR 3500 and BLM Manual 3500.
4. Mineral Materials - 43 CFR 3600 and 3700 and BLM Manual 3600 and 3700.

5. Mining Law Administration - 43 CFR 3800 and 3700 and BLM Manual 3800 and 3700.
6. Oil Shale - Oil shale regulations are non-existent at this time. The regulations have been in a proposed status since 1980 and were withdrawn in 1985 because of a lack of interest in oil shale and oil shale leasing. Any oil shale leasing would be done on a one-time basis at this time and only with a showing of interest by industry, i.e., such as industry proposing a lease sale. Since there are no leasing regulations for oil shale, any offering of a lease will require departmental approval.

B. Mineral Prospecting and Development

Any plan proposing mineral prospecting and developmental or operational mining activities on Ua/Ub will be met with a request by the BLM that the entity submitting such a plan apply for a prospecting permit/lease, in accordance with the applicable regulations and/or propose a lease sale. Land use permits issued under 43 CFR 2920 will not be used for mineral activities which are covered under the appropriate mineral regulations and policies described above. Other proposals to use surface and subsurface facilities on Ua/Ub will be addressed in other sections of this management plan. The lands within Tracts Ua/Ub have been withdrawn from mineral entry under the 1872 Mining Law by Executive Order 5327, as amended.

VIII. Accounting

Funds set aside for the maintenance and eventual reclamation of the disturbed land at Tracts Ua/Ub are in a special project fund. These funds are used to pay the following:

- A. All costs directly related to the maintenance and operation of the facilities at Tracts Ua/Ub; including, but are not limited to:
 1. Salaries of the BLM maintenance workers on location
 2. Cost of housing the maintenance workers, including electricity and sewage services provided to these workers.
 3. Salaries of staff of the Vernal District who work directly on supervision or maintenance of the site and facilities (Note: Time spent on general management and coordination with potential users is to be charged to subactivity 4121).
 4. Electricity provided to the location for normal operations.
 5. Cost of building and road maintenance.
 6. Cost of maintaining equipment (vehicles, pumps, exhaust fan, etc.) transferred from White River Shale Corp. to the BLM.

7. Cost of replacement of equipment.

8. Cost incurred as a participant in a mine rescue team.

B. Reclamation

Reclamation costs are to be determined as shown in Section IX, Reclamation, below.

IX. Reclamation

At the time the facilities at Tracts Ua/Ub were transferred to the BLM, a cost estimate for reclamation was prepared. The Bookcliffs Area Manager and ADM's for Operations, Minerals, and Lands and Renewable Resources will jointly conduct an analysis before the beginning of 1991 which will compare the remaining funds in the special project account to costs of reclamation (updated as of that time) and the likelihood of leasing the tracts for oil shale development. The reclamation costs will be affected by salvage values, equipment costs, and the local economic climate. The Bookcliffs Area Manager will report his recommendation to the District Manager as to whether to continue to maintain the site or proceed with steps aimed at reclamation. The District Manager, in consultation with the State Director, will decide what course of action to take.

X. Mining Safety and Health Administration (MSHA) Regulations

It is the objective of the BLM, as operator of the facilities on Tracts Ua/Ub, to comply with MSHA regulations (30 CFR Parts 1-100, as applicable). The principal areas of concern include:

A. Mine Rescue Team Participation

One of the maintenance workers will be assigned to a mine rescue team (30 CFR 49). An agreement exists for our participation in such a team. Training requirements under 30 CFR 49.8 for the BLM employee on the team will be coordinated to be taken with other mine rescue team members.

B. Mine Entry

1. Special tours (Non-permittees): Before persons enter the mine, they will receive a briefing on the Self-rescuer and actions to be taken if mine evacuation is necessary.
2. Permittees: Individuals or groups permitted to conduct the extraction (mining) of material from the mine will be required to:
 - a. Obtain an independent contractors number from MSHA (30 CFR 45).

- b. Complete required training or refresher training for miners (30 CFR 48).
 - c. Report to the maintenance worker the information for the quarterly Employment and Coal Production Report (MSHA Form 7000-2).
 - d. Will be subject to MSHA inspection. BLM personnel will monitor permittee activity for compliance with permit stipulations.
3. Entry of the mine will be allowed only after procedures under 30 CFR 57.21017 are followed.

C. Training

An MSHA inspector, Mr. Robert Rich, has interviewed the current BLM maintenance workers and indicated MSHA training under 30 CFR 48 has been accomplished.

The BLM maintenance workers will be kept apprised of MSHA regulation changes which may affect the current shut-down status of the mine.

D. Periodic Reports to MSHA

1. Notification of legal identity (MSHA Form 2000-7). The District Manager has completed and submitted this form to MSHA.
2. The Quarterly Employment and Coal Production Report (MSHA Form 7000-2; 30 CFR 50 Subpart D) must be submitted at the end of each calendar quarter if an individual worked any day that quarter at the mine site.
3. The Mine Accident, Injury, and Illness Report (MSHA Form 7000-1) will be completed as per instructions in 30 CFR 50 Subpart A-C.
4. All reports will be routed to or completed by the ADM for Operations for review and/or submission.

E. MSHA Inspections

Upon the arrival of an MSHA inspector:

1. When an inspector arrives the maintenance worker will check his official identification and notify ADM, Operations of the inspectors arrival.
2. The maintenance workers will assist the inspector as needed and conduct any mine entry according to applicable regulations.

3. After the inspection the maintenance workers or other BLM representative will accept the inspection results.
4. The inspection results will be forwarded to the ADM, Operations. He will take action to correct any deficiencies found. Any formal response to MSHA will be signed by the District Manager.

Example of Minimum Conditions/Stipulations. The blank underlined areas are where the company or agency name is inserted.

1. As used in this permit, the term _____ shall include employees, representatives or agents of _____ and its contractors other than employees, representatives, or agents of DOE.
2. All facilities at oil shale tracts Ua and Ub are accessed and used at the sole risk of _____ and its personnel.
3. _____ will indemnify and save BLM harmless from and against all claims, liability, and causes of action for injury to, or death of, any person or persons, including persons employed or engaged by _____ or BLM, and for damage to or loss of property resulting from the activities of _____ or _____ personnel to the extent permitted by law.
4. _____ shall comply with BLM's rules and regulations concerning security and concerning the safety of the general public and BLM personnel while at or in the vicinity of the mine facilities on oil shale Tracts Ua and Ub managed by BLM. These rules and regulations shall be furnished to _____ from time-to-time by BLM, and are minimum requirements under this permit and shall not limit any of _____ obligations under this agreement. BLM's oil shale facilities safety rules are presented in Attachment A, attached hereto and made a part of this permit.
5. _____ will obtain an MSHA independent contractors identification number in accordance with 30 CFR 45 and shall comply with training requirements under 30 CFR 48.
6. _____ shall comply with all laws, regulations, codes, ordinances, and judicial and other orders of federal, state, and local government authorities having jurisdiction over DOE or any work being performed by _____ on the permitted land and shall obtain at its own expense all permits, licenses, and equipment required of it by such authorities to enable _____ to engage in the obtaining of the sample described herein. Without limiting the above, _____ agrees to comply with the Federal Mine and Safety and Health Act of 1977, all amendments to it, and all regulations (30 CFR Parts 1-100 as applicable, especially 30 CFR 57 Subpart "T" as the mine is classified as gassy) and orders issued under it.
7. A BLM representative will monitor the permittees activity and will be empowered to cease operations if unsafe operations are observed or other conditions warrant such. Operations are subject to MSHA inspection as well.
- *8. BLM will not furnish the buildings or surface equipment unless specifically authorized, except hoist and exhaust fan, for use by the permittee (unless activated or utilized by the mine rescue team).

- *9. The permittee will be required to pay a prorata share of electricity and other expenses as a result of the permitted activity on a monthly basis.

BLM will not provide the services of the two maintenance workers (BLM employees) in conducting the permitted activity (except as participants in a mine rescue team) i.e., _____ provides licensed operators for hoist and other equipment.

*Portions may be deleted or modified if permitted activity is by another governmental agency (i.e., permit is free or the permitted period is short, i.e. less than five days).

10. The permittee will operate between 7:45 a.m. and 4:30 p.m. weekdays, unless otherwise authorized in writing. No mining will occur if the mine rescue team is occupied with an emergency.
11. The extraction of the oil shale sample will be in such a manner as to maintain the integrity of the mine. _____ will be required to take appropriate measures to stabilize any damage to the structural integrity of the mine. BLM will be notified of any such incident(s) and a full proposal of corrective measures to be taken will be submitted to the BLM for approval.
12. The only disturbance permitted is the extraction of the oil shale sample. Any incident(s) of damage to existing mine facilities, utilities, ancillary equipment, etc. managed by the BLM will be reported to the BLM the same day _____ will be responsible for repair or replacement of any damaged item or reconditioning of the mine.
13. _____ will remove all extraneous material, including rock debris, resulting from the sample extraction from the surface and subsurface of the permitted area. _____ agrees to remove all of its property from the permitted area by the end of the term of the permit or within sixty (60) days of the termination of the permit.
14. This permit may be sooner cancelled or amended by the BLM if the oil shale is leased or the facilities are scheduled for reclamation. BLM will provide 90 days notice of such action.